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PATENT ABSTRACTS OF JAPAN

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(71)Applicant : NIPPON SHEET GLASS CO LTD
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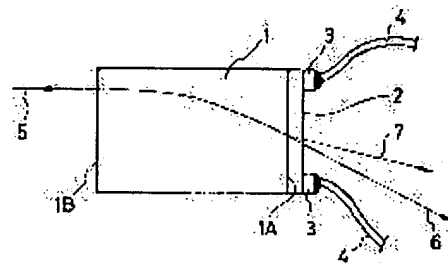
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(54) OPTICAL DEFLECTING ELEMENT

(57)Abstract:

PURPOSE: To reduce the size as compared with a conventional product by forming a thin film of a material which generates a surface acoustic wave by electric excitation on an end surface of a distributed index lens.

CONSTITUTION: There are ZnO, TeO₂, CeO₂, etc., as the material which generates the surface acoustic wave by electric excitation and a film of single or plural layers of different composition is formed sticking on the end surface of the distributed index lens 1 normally to $\leq 1\mu\text{m}$ thickness. A transducer 3 generates the surface acoustic wave on a deflecting thin film 2 to deflect and diffracted a light beam 5 incident on the distributed index lens 1 with the surface wave. Consequently, the need for individual assembly adjusting operation such as the alignment and relative positioning between the lens 1 and a function element is eliminated completely to easily realize superminiature and light-weight constitution while mass-producing it at low cost.



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